REMARKS

Reconsideration of the outstanding Office Action is respectfully solicited.

Claims 1-9 have been canceled and are replaced by new Claims 10-21. New claims are literally based on prior claims 1-9. Claims 1 and 4 have been combined as Claim 10 and Claims 1 and 7 have been combined as Claim 16.

Applicants respectfully traverse the rejection, under 35 U.S.C. 102, over the Jacobson et al. patents, of claims 1, 3, 4, 6, 7 and 9. The Examiner further claims that the additional dependent claims suggest themselves in view of Watson-Adams (4,378,256) and Moser et al. (4,724,172). The secondary references are irrelevant as the prior relates to aluminum coatings and the latter relates to aluminum containing coatings.

There is a basic difference between Applicants patent application and the references cited in opposition by the Examiner. Accordingly, applicants submit the Jacobson references do not anticipate, per MPEP Section 213. In applicants' view, a claim by claim analysis reveals that the Jacobson et al. references do not describe each and every limitation of the claims. As is clearly expressed in the cited references, the erosion-reducing effect is to be achieved in that the admixtures result in a layer of oxides, carbides and/or nitrides of the corresponding metal on the internal surface of the weapon barrel. This protective layer is designed to prevent an erosion of the weapon barrel.

In contrast, the erosion-reducing admixtures for the subject matter of the instant application **do not** result in a protective layer when incorporated into the combustible case. Rather, the erosion-reducing effect of the admixtures is achieved in that the hydrogen generated during the combustion of the case and powder, which is above all responsible for creating the erosion, is eliminated through a reduction of the admixtures that function as

oxidizing agents and by forming H_2O. In the process, elemental metal (e.g. tungsten) in the most refined form is created while using energy, meaning it results in a reduction in the temperature. However, this material does not form a protective layer. Please see page 8 of the application which is illustrative:

> The surprisingly good erosion-reducing effect of these oxides is presumably due to their ablative effect, which leads to a cooling of the inside wall of the weapon tube from which the respective ammunition is fired. The ablative effect of the oxides is explained through the high negative formation heat ΔH of these oxides and the relatively low boiling points. The weapon tube is cooled by the enthalpy of vaporization of these oxides, which are located practically directly against the inside wall of the weapon tube because of their intercalation into the wall regions of the shaped ammunition part, so that the erosion is lowered noticeably.

The use of polyoxymethylene (POM) only results in a slightly different behavior. As a result of the high temperatures, this high molecular substance is decomposed into the building blocks CH_2 –O. The decomposition enthalpy of this reaction, however, causes an ablative cooling of the inside wall of the weapon barrel.

Another effect is achieved during the reaction of O-CH2 radials with hydrogen, which bonds with hydrogen and thus also prevents erosion.

Thus, a protective layer does not form even when using POM as erosion-reducing admixture.

Jacobson otherwise relates the share of the erosion-reducing admixture (3%) to the propellant charge. In contrast, the share of the admixtures (2 to 15%) in the application relates to the combustible case.

Reconsideration and an early allowance are respectfully solicited.

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